

Full name: **Sabharatna Ananda Kulasooriya**

Address: Office- Department of Botany, University of Peradeniya, Peradeniya, Sri Lanka.

Residence- 45/6, University Square, Dangolla, Kandy, Sri Lanka.

Phone: 081-2389946 (residence), 077 6004940 (mobile)

e-mail: ananda@kulasooriya.com

Academic qualifications

BSc. Honors (University of Ceylon) 1966, Ph.D. (University of London) 1971

Professional affiliations:

1967: Member, CAAS later SLAAS. Secretary Section D (1974) Council Member (2000)

1984: Fellow, Institute of Biology, Sri Lanka (President in 2000)

1986: Fellow, National Academy of Sciences, Sri Lanka.

1995: Member, Organization of Professionals, Kandy (President from 2003 to 2006)

Employment

1966 – 2006: 40 years at the University of Peradeniya, Peradeniya, Sri Lanka.

Retired as a Senior Professor of Botany. During this service, held positions of Professor of Microbiology (since 1981), Head of Department (4 times), Dean, Graduate Studies, Dean, Faculty of Science and acting Vice-Chancellor.

Current status: Emeritus Professor of Botany.

Presently, Visiting Research Professor, Institute of Fundamental Studies, Kandy.

Honours, Awards and Fellowships

1986: Titular National Honour *Vidya Nidhi* awarded by the President of Sri Lanka at the inauguration of the National Honours Scheme in Sri Lanka.

1999 & 2000: Presidential Research awards for international research publications.

1996: Senior Resident Scholar, Rockefeller Research and Study Center, Bellagio, Italy.

1990: Senior Commonwealth Traveling Fellow to visit five universities in Canada.

1987/88: Visiting Scientist, Weizmann Institute of Science, Rehovot, Israel.

1986: Inaugural Merit award for the best research project in Biological Sciences, Natural Resources, Energy and Science Authority (NARESA), Sri Lanka.

Research

Grants received

Sixteen research grants have been received from local and overseas awarding agencies from 1974 to the present.

Research Interests

Biological nitrogen fixation and Biofertilizers.

Algal toxins and water quality.

Plant oil based and cellulosic biofuel production.

Current Research

Rhizobiology of pulse legumes.

Development of Biofilm Biofertilizers.

Application of biofilms for biofuel production.

Studies of the plankton of water reservoirs in Sri Lanka with special emphasis on algal toxins.

Publications

Research papers: 65.

Communications, Presentation Abstracts and Popular Lectures: 107.

Selected publications

a) Papers in journals included in the ICI

1. R. R. Ratnayake, G. Seneviratne and S. A. Kulasooriya (2007) A modified method of weight loss on ignition to evaluate soil organic matter fractions. *International Journal of Soil Science*, 2: 69 – 73.
2. W. M. M. S. Bandara, Gamini Seneviratne and S. A. Kulasooriya (2006) Interactions among endophytic bacteria and fungi: effects and potentials. *Jour. Bioscience*, **31** (6): 645- 650.
3. T.I.L.Wijesundera, L.H.J.Van Holm and S.A. Kulasooriya (2000) Rhizobiology and nitrogen fixation of some tree legumes native to Sri Lanka. *Biol. Fertil. Soils*, **30**: 535 – 543.
4. C. Van Nieuwenhove, L. Van Holm, S. A. Kulasooriya and K. Vlassak (2000) Establishment of *Azorhizobium caulinodans* in the rhizosphere of wetland rice (*Oryza sativa* L.), *Biol. Fertil. Soils*, **31**: 143 – 149.
5. G. Seneviratne, L. H. J. Van Holm, L. J. A. Balachandra and S. A. Kulasooriya (1999) Differential effects of soil properties on leaf nitrogen release. *Biol.Fertil. Soils* **27**:
6. G. Seneviratne, J. Karunaratne, T. Rosswall and S. A. Kulasooriya (1994) Theory to predict potentially mineralizable nitrogen in soils. *Soil Biol. Biochem.*, 26: 1491–1493.
7. G. Seneviratne, S. A. Kulasooriya and T. Rosswall (1994) Sustainment of soil fertility in traditional rice farming in the dry zone of Sri Lanka. *Soil Biol. Biochem.*, **26**: 681 – 688.

8. G. Seneviratne, S. A. Kulasooriya, W. L. Weerakoon and T. Rosswall (1992) Nitrogen fixation in two *Sesbania* species and the transfer of its nitrogen to rice (*Oryza sativa*), revealed by ¹⁵N-technology. *Biol. Fertil. Soil*, **14**: 37 – 42.
9. M. A. P. de Silva, S. A. Kulasooriya and R. P. Gunawardene (1991) Long fallow periods: A key to sustenance of soil fertility? *Plant and Soil*, **135**: 297 – 302
10. S. A. Kulasooriya, P. A. Roger, W. L. Barraquio and I. Watanabe (1981) Epiphytic nitrogen fixation in deepwater rice. *Soil Sci. Plant Nutr.*, **27**: 19 – 27.
11. S. A. Kulasooriya and R. S. Y. de Silva (1981) Multivariate interpretation of the distribution of nitrogen fixing blue-green algae in rice soils of Central Sri Lanka. *Annals of Botany (Lond)*, **47**: 31 – 51.
12. P. A. Roger, S. A. Kulasooriya, A. C. Tirol and E. T. Craswell (1980) Deep placement: A method of fertilizer application compatible with algal nitrogen fixation. *Plant & Soil*, **57**: 137 – 142.
13. S. A. Kulasooriya and P. Fay (1974) On the reversibility of heterocyst differentiation. *British Phycol. Jour.*, **9**: 92 – 94.
14. P. Fay and S. A. Kulasooriya (1973) A simple apparatus for the continuous culture of photosynthetic microorganisms. *British Phycol. Jour.*, **8**: 51 – 57.
15. P. Fay and S. A. Kulasooriya (1972) Tetrazolium reduction and nitrogenase activity in heterocystous blue-green algae. *Arch. Mikrobiol.*, **87**: 341 – 352.
16. S. A. Kulasooriya, N. J. Lang and P. Fay (1972) The heterocysts of blue-green algae III. Differentiation and nitrogenase activity. *Proc. Roy. Soc. (Lond) B*, **181**: 199 – 209.

b) Books and Chapters in Books

1. S. A. Kulasooriya (2008) *Biological Nitrogen Fixation: Fundamentals and Utilization*. Peradeniya Science Publication No 27, Science Education Unit, Faculty of Science, University of Peradeniya, ISBN No: 978-955-589-108-0: 143p.
2. P. A. Roger and S. A. Kulasooriya (1980) *Blue-Green Algae and Rice*. The International Rice Research Institute, Los Banos, Philippines: 113p.
3. S. A. Kulasooriya (2005) Nitrogen Fixation in Rice Fields. In: C. H. Fernando, F. Goltenboth and J. Margraf eds., *Aquatic Ecology of Rice Fields: A Global Perspective*. Publ., ViSCA-GTZ, Applied Tropical Ecology Program, Philippines and Institute of Plant Production & Agroecology, Germany: 271 – 279.

Service outside the University

National

2008 – **Member**, Special Committee to draft a National Policy for Higher Education in Sri Lanka, National Education Commission of Sri Lanka.

2008 to present: **Consultant** Rhizobium Inoculant Development and Research Facility, Department of Botany, University of Peradeniya.

2006 to present – **Trained Reviewer**, for subject reviews under the World Bank assisted project on Improvement of Relevance & Quality of Undergraduate Education (IRQUE) in Sri Lanka. Ministry of Higher Education.

1996: **Team Leader** of consultants to draft the Biodiversity Conservation and Action Plan of Sri Lanka, under contract to the International Union for the Conservation of Nature (IUCN-Sri Lanka).

1993 – 98: **Consultant** to the National Water Supply and Drainage Board of Sri Lanka. Recording and monitoring toxin producing blue-green algae in reservoirs and other water bodies.

1991 – 95: **Member**, Steering Committee on Biological Sciences, NARESA.

1989: **Member**, Editorial Committee, Journal of the Rubber Research Institute, Sri Lanka.

1984 – 1996: **Senior Research Fellow, Visiting Scientist and Professor**, Institute of Fundamental Studies, Kandy.

International

2003/04: **Senior Fellow**, Global Studies Institute, San Jose State University, California, USA.

1998 – 1999: **Visiting Professor**, Department of Crops & Soil Science, Washington State University, Pullman, Washington, USA.

1997: **Resource person**, Training workshop on cyanobacterial toxins in water, National Center for Environmental Toxicology in collaboration with the Commonwealth Science Council, Brisbane, Australia.

1992 – 95: **Member**, Board of Directors, Asian Network for Smallscale Agricultural Biotechnologies (ANSAB), Kathmandu, Nepal.

1992: **Invited teacher**, Katholeik University of Louvain, Belgium.

1989: **Resource person**, Commonwealth Science Council sponsored ARAST 1 workshop on Biotechnology and allied sciences, Pune, India.

1988: **Member**, Scientific Advisory Council, The International Geosphere-Biosphere Programme on Global Change, Stockholm, Sweden.

1988: **Chairman** Special Consultation on Bio & Organic Fertilizers. FAO Regional Office for Asia & Southeast Asia, Bangkok, Thailand.

1985: **Member**, Special Advisory Committee for Nitrogen Fixation, International Rice Research Institute, Los Banos, Philippines.

1985: **Co-Chairman and Coordinator**, Regional Training Course on Microbiology and Biotechnology in Environmental Management in collaboration with the International Institute for Hydraulic and Environmental Engineering, Delft, Netherlands.

1983 – 1997: **Member**, Editorial Board, MIRCEN Journal of Applied Microbiology & Biotechnology published by the Oxford University Press and later World Journal of Microbiology & Biotechnology published by Rapid Science Publishers, London and Philadelphia.

1982, 83 & 84: **Short-term Consultant** on Nitrogen Fixation, International Atomic Energy Agency (IAEA), Vienna, Austria.

1981: **Member, International Panel of Teachers**, International Training Course on Microbiology of Nitrogen Cycling, Dhaka & Mymensingh, Bangladesh.

1978-79: **Research Fellow** at the International Rice Research Institute (IRRI), Philippines conducting research on blue-green algae in rice fields. Published 6 research papers and co-authored a book entitled Blue-Green Algae and Rice, published by IRRI.